



**UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/989,373	12/12/97	GARCIA	TRD-009-PA

KILLWORTH GOTTMAN  
HAGAN & SCHAEFF  
ONE DAYTON CENTER SUITE 500  
ONE SOUTH MAIN STREET  
DAYTON OH 45402-2023

LM02/1124

EXAMINER  
LEE, P

ART UNIT	PAPER NUMBER
2747	13

DATE MAILED: 11/24/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
08/989,373

Applicant(s)

Garcia et al

Examiner

R. LEE Y. Lee

Group Art Unit

~~2713~~  
2747

☒ Responsive to communication(s) filed on Sep 7, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-35 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-35 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 9, 10

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Claim Objections*

1. Claims 24 and 35 are objected to because of the following informalities: claims 24 and 35 specify the same limitation. Therefore, either one of them should be canceled. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen (3,742,113) or Garcia (5,361,306) in view of Johnson (1,855,054).

Regarding claims 1, 3, 4, 6-21, and 24-35, Cohen discloses an apparatus for enhancing the harmonic content of an audio signal including a passive circuit (column 4, lines 17-28). Garcia also discloses a similar device comprising a passive circuit. However, neither Cohen nor Garcia explicitly shows that the audio signal component increase in amplitude as they increase in frequency from a first intermediate frequency up to a high frequency or other component increase in amplitude as they decrease in frequency.

Johnson shows the apparatus (Fig. 1) comprising a passive circuit (19 or 25) to provide distortion to the input signal (column 7, lines 16-19), such that the input signal component

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increase in amplitude as they increase in frequency from a first intermediate frequency up to a high frequency or other component increase in amplitude as they decrease in frequency (see Fig. 5).

Although the passive circuit as taught in Johnson is used for radio frequency. One skilled in the art will be able to use appropriate components to design a similar transformer circuit operated in audio frequency. Thus, it would have been obvious to one of ordinary skill in the art to modify either Cohen or Garcia by replacing the passive circuit with a transformer circuit as taught in Johnson operating in audio frequency in order to provide harmonic and a high degree of amplification simultaneously.

Regarding claims 2 and 5, as discussed above, the passive circuit as taught in Johnson can be modified to operate in audio frequency range, including the range from 6 KHz to 30 KHz, and from 20 Hz to 1 KHz. The particular claimed "high frequency" and "low frequency" are related to nature of the application. Therefore, one skilled in the art would be able to make an appropriate selection of the "high frequency" and "low frequency".

Regarding claims 22 and 23, neither Cohen nor Garcia teaches that the enhanced audio signal is being recorded on a recording medium. However, it was well known in the art to use a recording device to record the modified audio signal for later "viewing" in order to provide any additional enhancement and mixing.

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*Response to Arguments*

4. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. **Any response to this final action should be mailed to:**

**Box AF**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

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(703) 308-9051, (for formal communications; please mark "EXPEDITED PROCEDURE")

**Or:**

(703) 305-9508 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping W. Lee whose telephone number is (703) 305-4865.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

  
PING W LEE  
PRIMARY EXAMINER  
GROUP 2700

pwl  
November 21, 1999